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ORIGINAL ARTICLE

Gingival Enlargement as a Manifestation of Osseous Choristoma: Case Report and Management

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Abstract:

The term choristoma describes a hamartomatous tumor-like lesion composed of normal tissue in an abnormal location and are designated according to the tissues from which they are derived. Typically, osseous choristomas of the oral cavity present as slow growing masses in the tongue, and rare cases are reported in the buccal mucosa and in the alveolar ridge. To our knowledge, few cases of gingival osseous choristoma have been reported, and the clinical differential diagnoses are very important for the practitioners. This report presents a rare location of a choristoma which by the clinical appearance and microscopic findings was shown to be an osseous choristoma presented in alveolar mucosa.

Keywords: Choristoma; Pathology, Oral; Hamartoma; Mouth Mucosa

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INTRODUCTION

A choristoma is defined as a tumour-like mass of normal cells or tissue that develops in an abnormal location[1]. These lesions may be composed of different types of tissues whose only similarity is their close association in fetal development, and are designated according to the tissues from which they derive (e.g. salivary gland, cartilage, bone, glia, gastric mucosa)[2,3]. Osseous choristoma is an uncommon alteration of the soft tissues in the oral cavity. Clinically, these lesions were described as a hard mass, either pedunculated or sessile and the most frequent topographical region is the posterior third of the tongue[1,4]. Other locations for this lesion to arise are extremely rare[5]. The treatment of choice is a surgical excision with uneventful healing. Recurrence or malignant transformation has not been reported[2,6]. This report describes a rare case of the osseous choristoma in the maxillary alveolarmucosa.

CASE REPORT

A 37 years-old female was referred for diagnostic evaluation of a nodule involving the alveolar mucosaof the maxillary premolar region, present for about 6 months (Figure 1). The lesion was 15 mm in diameter and caused discomfortduring chewing but was otherwise asymptomatic. Examination by palpation revealed a smooth, firm, well circumscribed, mobile, non-painful mass in the right maxillary alveolar mucosa. Radiologically, neither erosion of the underlying bone nor endodontic and periodontal lesions were present. Excisional biopsy of the lesion was performed under local anesthesia and during the procedure noticed the integrity of the adjacent periosteum, showing that the lesion did not have correlation with the alveolar bone. The surgical specimen was fixed in 10% neutral buffered formalin for 24 hours and, following common practice, embedded in paraffin. Sections, 4 µm thick, were stained with hematoxylin and eosin (H&E), for histological evaluation.

Microscopic examination after decalcification revealed a nodule of bone surrounded by connective tissue with epithelium. The osseous layer was of mature and dense lamellar bone. The connective tissue was thin and fibrous, well-circumscribed by stratified squamous epithelium of the gingival surface (Figure 2 and 3). The final diagnosis was gingival osseous choristoma. The patient was kept under regular follow-up and there is no evidence of disease in two years (Figure 4).

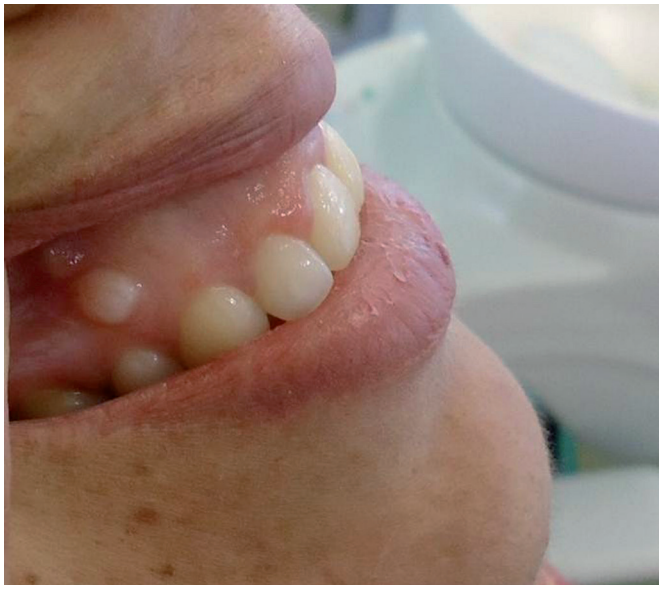

Figure 1. Initial presentation, osseous choristoma. A slight elevation is evident in the alveolar mucosa.

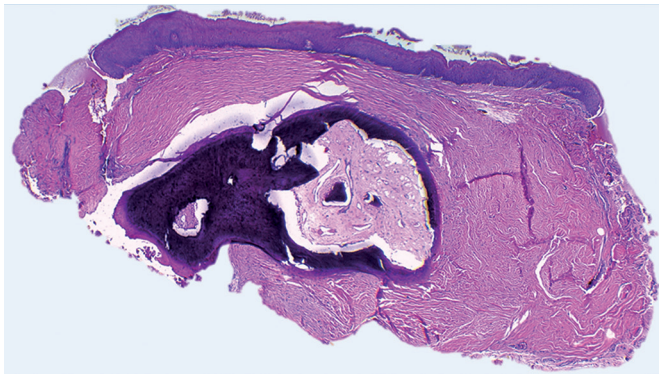

Figure 2. Complete view of the lesion (x4).

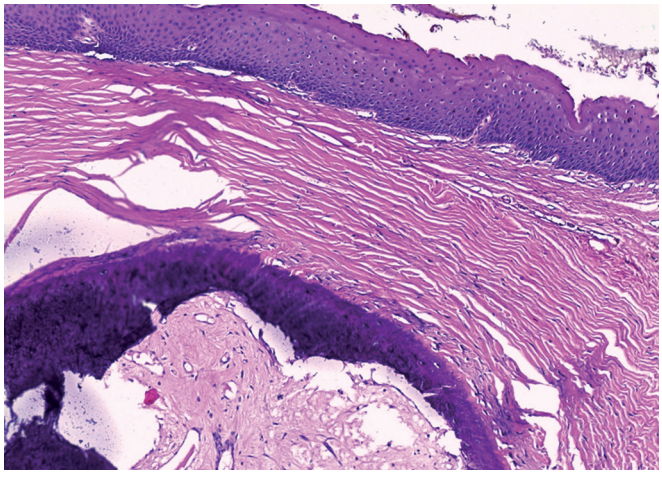

Figure 3. Presence of osseous tissue in the submucosal connective tissue (x10).

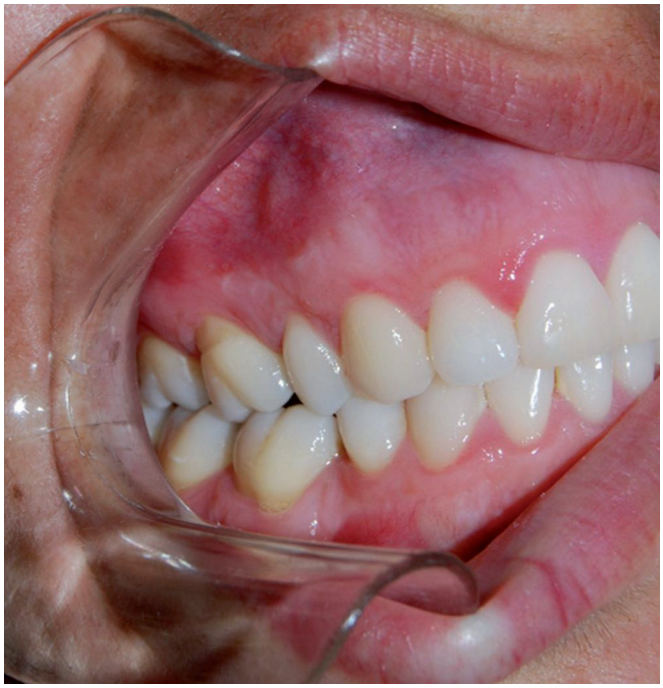

Figure 4. Two years post-operative clinical presentation.

DISCUSSION

Oral choristomas were described for the first time in 1990 by Berry[7], and the majority of lesions reported to date are located on the tongue[5,8], most frequently near the circumvallate papillae or foramen cecum. In the present case, however, the lesion is located in a alveolar mucosa, and only one case was in periodontium at lingual mandibular mucosa[9]. There are not aware of the publication of an osseous choristoma in similar location.

Although there are many theories of pathogenesis of osseous choristoma, it is still uncertain whether this lesion is developmental, neoplastic, or reparative[5,10]. Many authors support embryonic rests as an origin of choristomas[11]. It is also believed that pluripotent mesenchymal cells differentiate into osteocytes or chondrocytes. Metaplastic ossification can also result from trauma or chronic inflammation. In this case, soft tissue trauma was not reported by the patient[11].

The age range for reported cases of intraoral choristoma is between 8 and 73 years; however, the majority have been diagnosed in the women between the ages of 20 and 40 years[4,6]. Clinically, the choristoma develops as a firm pedunculated nodular lesion between 0.5 and 2 cm in size. Most patients are unaware of the lesion, but symptoms of pain, dysphagia, gagging, choking and nausea have been reported, mainly when the lesion is in the tongue[4,6]. In this presented case the lesion was asymptomatic.

Since the intraoral choristomas is rare, most such lesions are misdiagnosed as other soft tissue tumors 5. The clinical differential diagnosis of osseous choristoma depends on the location. In the alveolar mucosa, it has to be distinguished from a, fibroma, peripheral osteoma, or fibrous hyperplasia[5].

The intraoral choristoma is treated by means of surgical excision, recurrence and malignant transformation has not been reported[2,6]. The excised area was healed and free of recurrence to date.

CONCLUSION

In conclusion, this report has presented a rare location of a choristoma in a female patient, which by the clinical appearance and microscopic fgndings was shown to be an osseous choristoma presented in alveolar mucosa. To our knowledge, few cases of gingival osseous choristoma have been reported in the English language literature, and the clinical differential diagnoses are very important for the practitioners.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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